

and the contraction magnification of the photographing optical system (β) is made so that the area of the image photographed by the photographing means should be almost equal to the area observed by the eyepieces ($\beta = K/FN$, when the width across of the photographing element is set as K, and the number of views of the eyepieces is set as FN), and the magnification of the electronic zoom is made variable, thereby the magnification of the image of the observation sample displayed by the display means can be made equal to the magnification of the image of the observation sample observed by the eyepieces.

31. (New) An inverted microscope according to claim 30, further comprising: means for storing plural magnifications of the image of the observation sample displayed by the display means changed by the electronic zoom function; and means for setting the magnification of the image of the observation sample displayed by the display means to an optional magnification.

32. (New) An inverted microscope according to claim 23, wherein the contraction magnification of the photographing system is so set that the magnification of the image of the observation sample displayed by the display means should be equal to the magnification of the image of the observation sample observed by the eyepieces.

33. (New) An inverted microscope according to claim 23, wherein when displaying the image photographed by the photographing means by the display means, a signal processing portion having an electronic zoom function for magnifying the image by an optional magnification is arranged,

and the contraction magnification of the photographing optical system (β) is made so that the area of the image photographed by the photographing means should be almost equal to the area observed by the eyepieces ($\beta = K/FN$, when the width

10 across of the photographing element is set as K, and the number
of views of the eyepieces is set as FN), and the magnification of
the electronic zoom is made variable, thereby the magnification
of the image of the observation sample displayed by the display
means can be made equal to the magnification of the image of the
observation sample observed by the eyepieces.
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34. (New) An inverted microscope according to claim 33,
further comprising: means for storing plural magnifications of
the image of the observation sample displayed by the display
means changed by the electronic zoom function; and means for
5 setting the magnification of the image of the observation sample
displayed by the display means to an optional magnification.